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ABSTRACT OF THE DISCLOSURE

In an image scanner, multiple exposures are used for each scan line, and only part of the pixels for each scan line are used for each exposure. For example, with two exposures, half the pixels may be used for the first exposure, and half for the second exposure. For each exposure, half of the charges are shifted out rapidly and discarded, without waiting for the A/D conversion time. As a result, for each exposure, the time required to empty the charge shift register is greatly reduced, reducing the thermal noise for all pixels.

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